



P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-30 V
I_D	-25 A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	17 m
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	24 m
100% EAS Tested	

General Description

Trench Power LV MOSFET technology
High density cell design for Low $R_{DS(ON)}$
High Speed switching
Moisture Sensitivity Level 3
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

Battery protection
Load switch
Power management

Absolute Maximum Ratings ($T_A=25$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	-30	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25^{\circ}C$	I_D	-8	A
	$T_A=100^{\circ}C$		-5	
	$T_C=25^{\circ}C$		-25	
	$T_C=100^{\circ}C$		-15	
Pulsed Drain Current ^A		I_{DM}	-100	A
Avalanche energy ^B		EAS	60	mJ
Total Power Dissipation ^C	$T_A=25^{\circ}C$	P_D	2	W
	$T_A=100^{\circ}C$		0.8	
	$T_C=25^{\circ}C$		3	



YJQ25P03AJ

RECOMMEND
[YJQ35P03B](#)
FOR NEW DESIGN

Electrical Characteristics ($T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=-250\mu A$				



Typical Electrical and Thermal Characteristics Diagrams

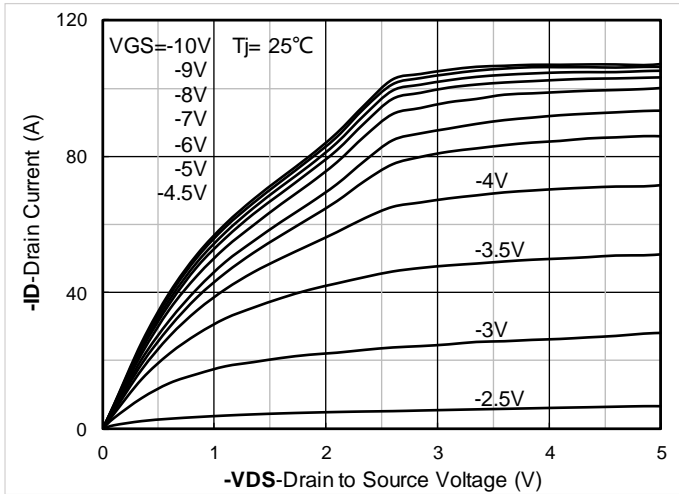


Figure 1. Output Characteristics

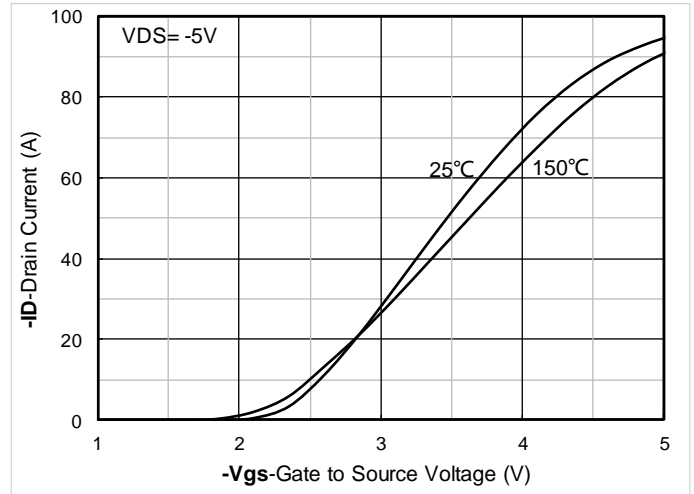


Figure 2. Transfer Characteristics

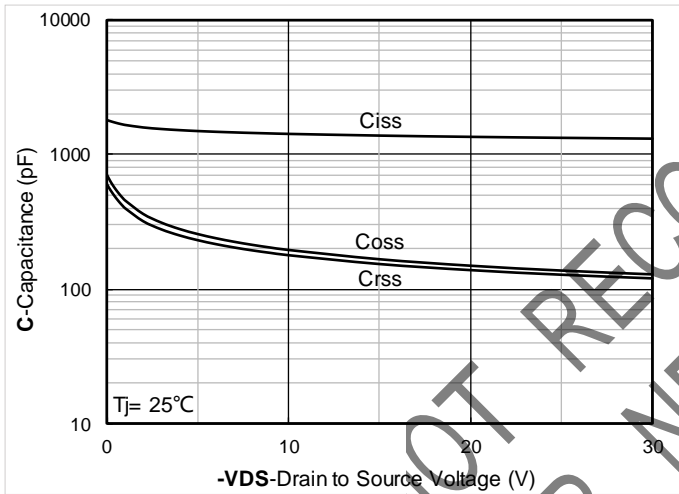


Figure 3. Capacitance Characteristics

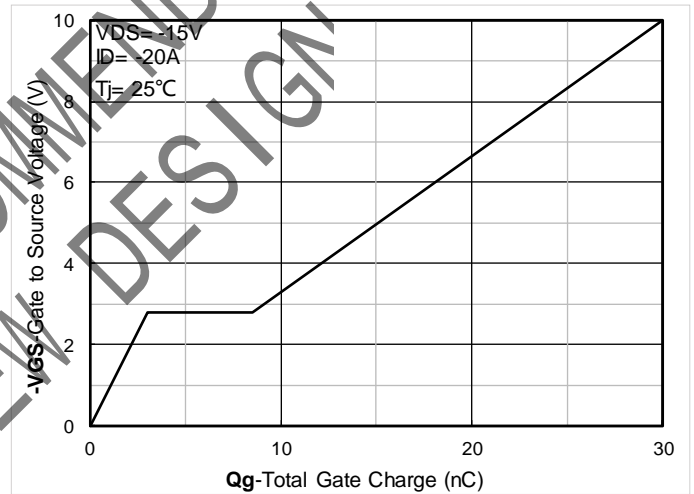


Figure 4. Gate Charge

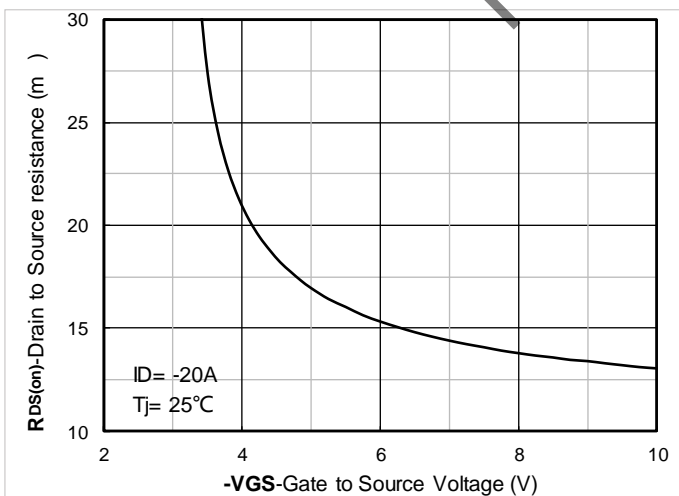


Figure 5. On-Resistance vs Gate to Source Voltage

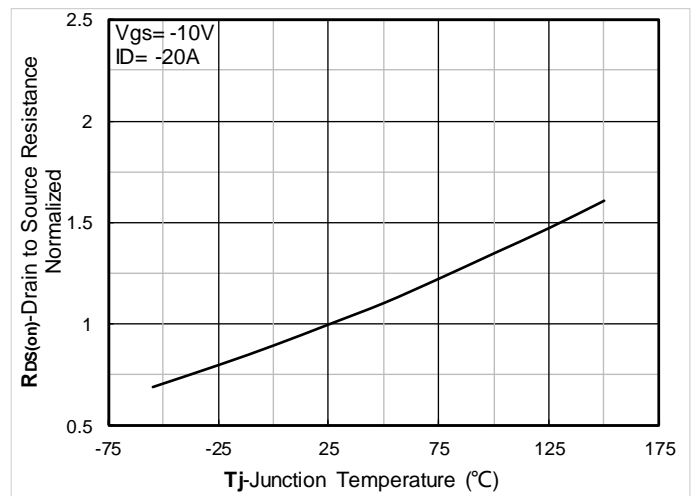


Figure 6. Normalized On-Resistance

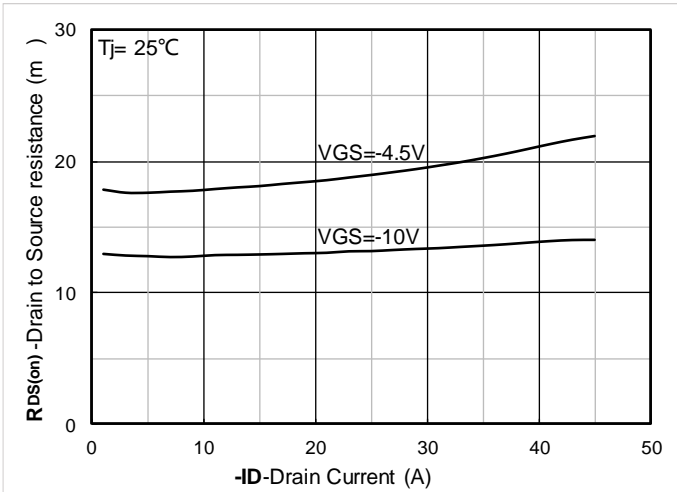


Figure 7. RDS(on) VS Drain Current

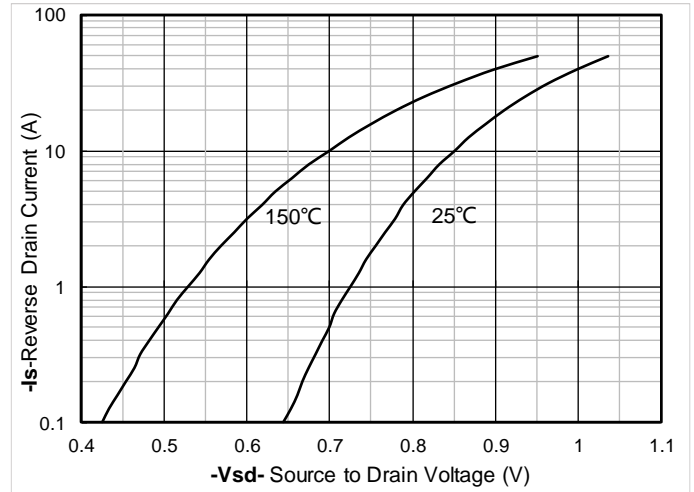


Figure 8. Forward characteristics of reverse diode

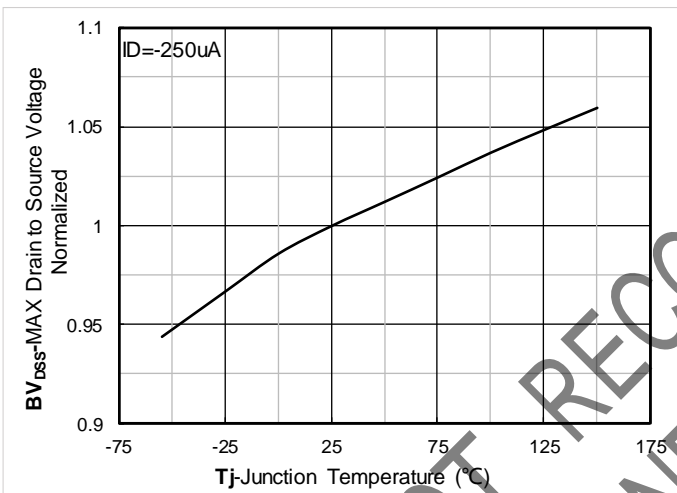


Figure 9. Normalized breakdown voltage

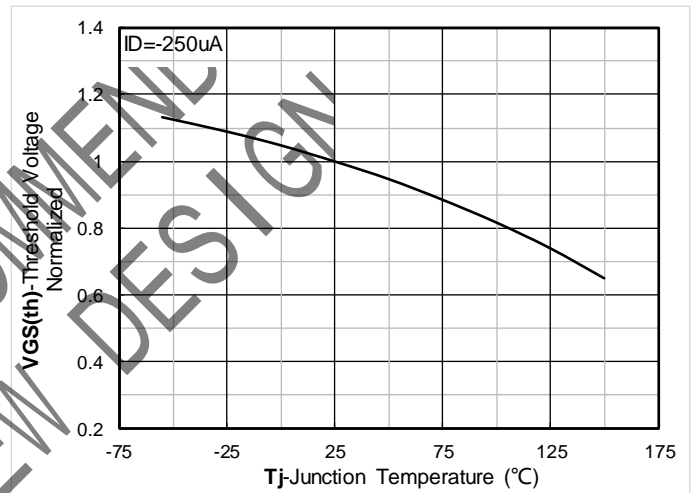


Figure 10. Normalized Threshold voltage

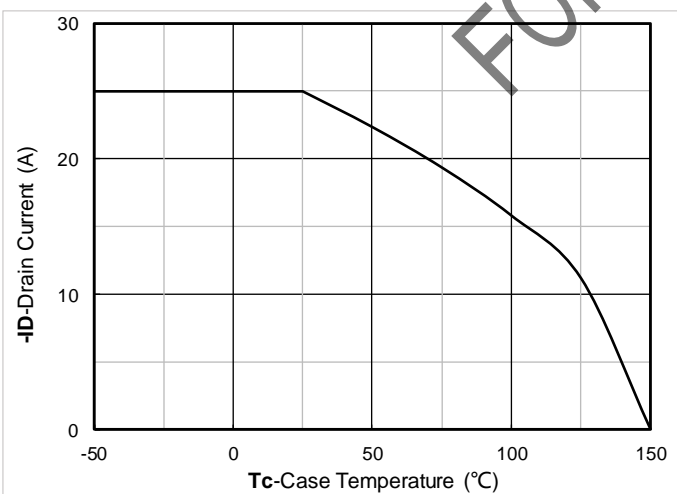


Figure 11. Current dissipation

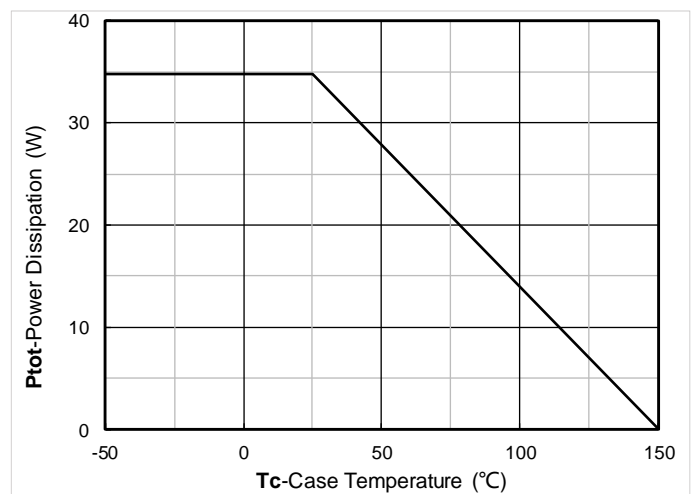


Figure 12. Power dissipation

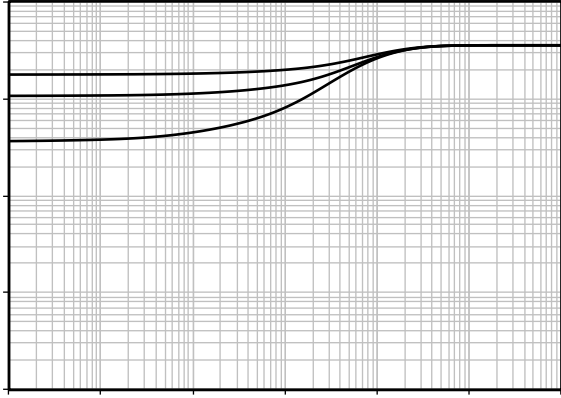


Figure 13. Maximum Transient Thermal Impedance

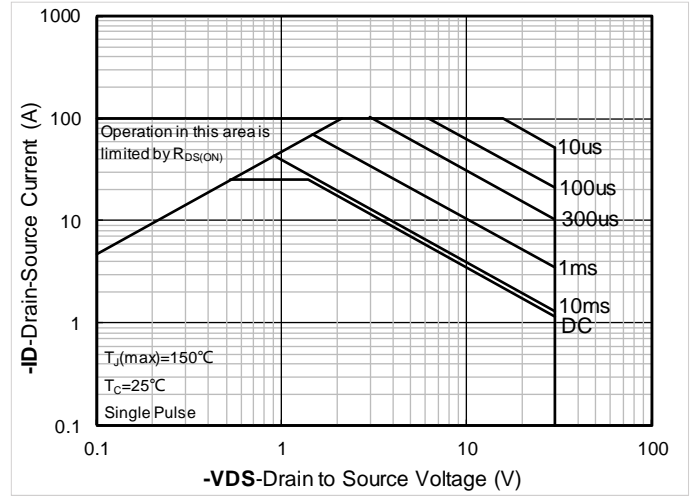
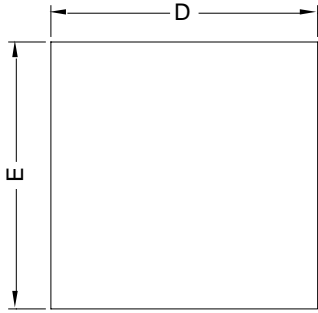


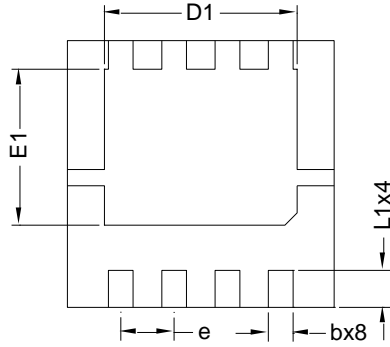
Figure 14. Safe Operation Area



DFN3333-8L-A Package information

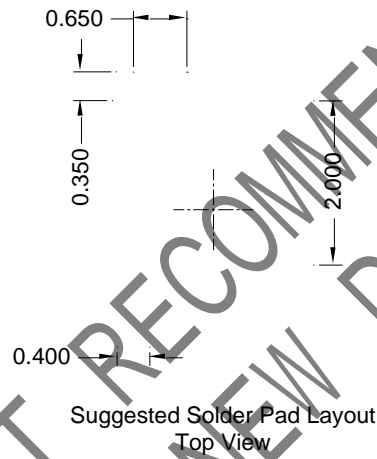


Top View



Bottom View

Side Vi



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.10\text{mm}$.
3. The pad layout is for reference purposes only.

NOT RECOMMEND
FOR NEW DESIGN



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.21yangjie.com> , or consult your nearest Yangjie's sales office for further assistance.

NOT RECOMMEND
FOR NEW DESIGN